

What is claimed is:

1. An electrostatic chuck (ESC) for a wafer comprising:
 - a base on which the wafer is mountable;
 - a first ring-type sealing member provided on an upper end part of the base;
 - a second ring-type sealing member separately provided on the upper end part of the base, and which divides the wafer into an edge part and a center part when the wafer is mounted;
 - a first helium gas supply passage formed inside the base, and which emits a helium gas to the edge part of the wafer; and
 - a second helium gas supply passage provided inside the base and offset from the first helium gas supply passage, and which emits the helium gas to the center part of the wafer.
2. The ESC for a wafer according to claim 1, wherein the first helium gas supply passage comprises:
 - a first helium gas inlet provided in a bottom of the base;
 - a plurality of first helium gas outlets provided in the upper end part of the base corresponding to the edge part of the wafer; and
 - a first inner conduit formed branched from the first helium gas inlet, and connected to the plurality of the first helium gas outlets.
3. The ESC for a wafer according to claim 2, wherein the first inner conduit comprises:
 - a plurality of first branch conduits connected to the first helium gas inlet; and
 - a first circular conduit connected to the plurality of the first branch conduits and the plurality of the first helium gas outlets.
4. The ESC for a wafer according to claim 2, wherein the second helium gas supply passage comprises:
 - a second helium gas inlet provided in a bottom of the base;
 - a plurality of second helium gas outlets provided in the upper end part of the base corresponding to the center part of the wafer; and

a second inner conduit formed branched from the second helium gas inlet, and connected to the plurality of second helium gas outlets.

5. The ESC for a wafer according to claim 4, wherein the second inner conduit comprises:

a plurality of second branch conduits connected to the second helium gas inlet; and
a second circular conduit connected to the plurality of the second branch conduits and the plurality of the second helium gas outlets.

6. The ESC for a wafer according to claim 3, wherein the second helium gas supply passage comprises:

a second helium gas inlet provided in a bottom of the base;
a plurality of second helium gas outlets provided in the upper end part of the base corresponding to the center part of the wafer; and
a second inner conduit formed branched from the second helium gas inlet, and connected to the plurality of the second helium gas outlets.

7. The ESC for a wafer according to claim 6, wherein the second inner conduit comprises:

a plurality of second branch conduits connected to the second helium gas inlet; and
a second circular conduit connected to the plurality of the second branch conduits and the plurality of the second helium gas outlets.

8. The ESC for a wafer according to claim 1, further comprising:
a third ring type sealing member provided on the upper end part of the base, and which divides the center part of the wafer into first and second areas when the wafer is mounted; and

a third helium gas supply passage provided inside the base and offset from the second helium gas supply passage, and which emits the helium gas to the first area of the divided center part of the wafer.

9. The ESC for a wafer according to claim 8, wherein the third helium gas supply passage comprises:

a helium gas inlet provided in the bottom of the base;
a plurality of helium gas outlets provided in the upper end part of the base corresponding to the first area of the divided center part of the wafer; and

an inner conduit formed branched from the helium gas inlet and connected to the plurality of the helium gas outlets.

10. The ESC for a wafer according to claim 9, wherein the inner conduit comprises:

- a plurality of branch conduits connected to the helium gas inlet; and
- a circular conduit connected to the plurality of the branch conduits and the the plurality of the helium gas outlets.

11. The ESC for a wafer according to claim 4, further comprising:
a third ring type sealing member provided on the upper end part of the base, and which divides the center part of the wafer into first and second areas when the wafer is mounted; and

- a third helium gas supply passage provided inside the base and offset from the second helium gas supply passage, and which emits the helium gas to the first part of the divided center part of the wafer.

12. The ESC for a wafer according to claim 11, wherein the third helium gas supply passage comprises:

- a third helium gas inlet provided in the bottom of the base;
- a plurality of third helium gas outlets provided in the upper end part of the base corresponding to the first area of the divided center part of the wafer; and
- a third inner conduit formed branched from the third helium gas inlet and offset from the second inner conduit, and connected to the plurality of the third helium gas outlets.

13. The ESC for a wafer according to claim 12, wherein the third inner conduit comprises:

- a plurality of third branch conduits connected to the third helium gas inlet; and
- a third circular conduit connected to the plurality of the third branch conduits and the plurality of the third helium gas outlets.

14. The ESC for a wafer according to claim 6, further comprising:
a third ring type sealing member provided on the upper end part of the base, and which divides the center part of the wafer into first and second areas when the wafer is mounted; and

a third helium gas supply passage provided inside the base and offset from the second helium gas supply passage, and which emits the helium gas to the first area of the divided center part of the wafer.

15. The ESC for a wafer according to claim 14, wherein the third helium gas supply passage comprises:

- a third helium gas inlet provided in the bottom of the base;
- a plurality of third helium gas outlets provided in the upper end part of the base corresponding to the first area of the divided center part; and
- a third inner conduit formed branched from the third helium gas inlet and offset from the second inner conduit, and connected to the plurality of the third helium gas outlets.

16. The ESC for a wafer according to claim 15, wherein the third inner conduit comprises:

- a plurality of third branch conduits connected to the third helium gas inlet; and
- a third circular conduit connected to the plurality of the third branch conduits and the plurality of the third helium gas outlets.

17. An electrostatic chuck (ESC) for a wafer, comprising:

- a body on which the wafer is mountable by electrostatic force, the body having first and second surfaces, oppositely disposed;

- a plurality of sealing members mounted on the first surface and which divide the wafer into a plurality of predetermined areas when the wafer is mounted on the body;

- a plurality of cooling gas outlets formed in the body and arranged in groups, each cooling gas outlet emitting a cooling gas onto the wafer, wherein outlets in a respective group emit the cooling gas onto the wafer in a respective predetermined area of the wafer;

- a plurality of independent cooling gas inlets; and

- a plurality of independent gas passages, each of which fluidly connects a respective cooling gas inlet with the cooling gas outlets in a group.

18. The ESC of claim 17, wherein:

- each cooling gas inlet is positioned within central portion of the second surface; and
- each independent gas passage comprises:

- a first conduit which fluidly connects the cooling gas outlets in a respective group, and

a plurality of second conduits which fluidly connect the respective cooling gas inlet with the respective first conduit.

19. The ESC of claim 17, wherein:
each cooling gas inlet is positioned within central portion of the second surface; and
each independent gas passage comprises a plurality of conduits, each of which fluidly connects the respective cooling gas inlet with a respective one of the group of cooling gas outlets.

20. A method of cooling a wafer in an electrostatic chuck (ESC), the method comprising:
providing a body on which the wafer is mountable by electrostatic force;
providing seals which divide the wafer into a plurality of predetermined areas when the wafer is mounted on the body; and
introducing a cooling gas into each of the predetermined areas independently.

21. The method of claim 20, wherein the cooling gas is introduced into each cooling area synchronously with the introduction of the cooling gas into at least one other of the predetermined areas.